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# DESIGN OF BEOL PATTERNS TO REDUCE THE STRESSES ON STRUCTURES BELOW CHIP BONDPADS

## Abstract

A semiconductor structure comprising a substrate including a first layer comprising a first material having a first modulus of elasticity; a first structure comprising a conductor and formed within the first layer, the first structure having an upper surface; and a stress diverting structure proximate the first structure, wherein the stress diverting structure provides a low mechanical stress region at the upper surface of the first structure when a physical load is applied to the first structure, wherein said low mechanical stress region comprises stress values below the stress values in areas not protected by the stress diverting structure. The stress diverting structure comprises a second material having a second modulus of elasticity less than the first modulus of elasticity, the second material selectively formed over the upper surface of the first structure for diverting mechanical stress created by the physical load applied to the first structure.